

## THE ARMENIAN ONOMATOPOETIC VERBAL INFIX IN -(A)(N)Č'-

JOHN A. C. GREPPIN  
CLEVELAND STATE UNIVERSITY

There is a class of Armenian verbs ending in *-(a)č'em*, *-(a)nč'em*, *-(a)rač'em* and *(a)r(a)nč'em* which are frequently related to onomatopoeic, or echoic, roots. Overwhelmingly the resulting words will have a meaning of 'to cheep, to bleat, to shout, to hiss, to howl and other such similar sonic explosions. Adjarian, in his root dictionary, noted that five verbs in *-arač'em* had a certain semantic unity, but, as far as I can tell, no one has noted the additional correlatives of *-ač'em*, and *-anč'em*, of which there are about thirty.<sup>1</sup> And though some verbs of this shape, e.g., *čanač'em*,

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1. There is no Indo-European mechanism for forming onomatopoeic verbs, but various languages have their ways. Greek, among other procedures, will use the suffix *-ζω*, as in *σίζω* 'to hiss,' *γρύζω* 'to bark,' and *λαλάζω* 'to babble.' Most aorist and future forms of verbs of this class have *-ξ-*, hence *-ζ-* < *\*-γγω*. It is not related to the factitive *-ίζω* < *\*ιδγω*. Sanskrit developed a similar pattern, using the factitive verb *kr-* 'do, make' or the verb of being, *bhū-*, *akkhalīkṛtya* 'croaking,'

'to know,' are certainly not of onomatopoetic origin, they are relatively few, and will be dealt with separately.

There seems to be no evidence to support a view that this onomatopoetic -č'- is of Indo-European origin, as perhaps may be the final -č'- of *čanač'em* or *t'ak'č'im*, ascribed by some to \*sk-ye/o-<sup>2</sup>.

Pertinently, none of these onomatopoetic verbs have any relationship to Indo-European forms. and, in fact, I can make no wholly convincing suppositions about the origin of this -č'- . Perhaps it too is onomatopoetic, but certainly no speaker of modern Armenian would see a -č'- infix as having onomatopoeia, and I know of no Middle Armenian grammarian<sup>3</sup> who has commented on this, nor is it noted in any work on Armenian suffixes with which I am familiar.

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or *alalābhāvant* 'making merry.'

2. Meillet (*Esquisse*, 1936.109-110) derives the -č'- from IE \*-isk-ye/o- considering it "parmi les plus archaïques de l'arménien," and of Indo-European origin. Godel (*Introduction*, 1975) rejects Meillet's -sk- origin, saying that that \*-ky- would be sufficient, and accords well with the Greek equivalent -σσω: Gk. πτήσσω 'to cower with fear,' which is semantically close to Arm. *t'ak'č'im* 'to hide.' Bearing in mind that IE \*py- yields both Gk. πτ- and Arm. *t'-*: a proto-form of *t'ak'č'im* and πτήσσω would be IE \*pya-k-ye/o- and this is sufficient to meet the phonological needs of both the Greek and Armenian terms. Pedersen (*KZ* 39, 1906.348) also differs from Meillet, and, as reflected by Godel, suggests an origin from IE \*-k-, as seen in Lat. *fa-c-io*, Gk. ἔθη-κα. None of these proto-forms are wholly satisfying, and they would explain little about echoic words.

3. Here I checked the indexes of seven twentieth century editions of Armenian grammarians.

Following is a list of those terms in  $-(a)(n)\check{c}'em^4$  that have onomatopoetic origin.<sup>5</sup>

Arm. *atač'em* 'to pray,' and hence originally 'to mumble prayers.' If this can be seen as an onomatopoetic word (not all would agree, though the division of morphemes is perfect) that we have a suffix  $-ač'em^6$  is clear from the nominal derivative *ataw'* 'prayer.' Note also *atač'ank'* 'supplication, prayer.' The verb appears in the Bible 225x = Gk, ἰκετεύω 'beseech,' εὐχομαι 'pray,' etc. No etymology exists despite phonetic contortions by Winter, *Evidence for Laryngeals* 1965.103, and Klingenschmitt (*MSS* 28, 1970.79-83). Dialects have nasal infix: Hawarik *atanč'ēm*.<sup>7</sup>

Arm. *bara(n)č'em* 'to bellow, low, roar'; with the simplex *bara(n)č'* 'a bellow, etc.' There is no evidence for an appropriate root *bar-*. Dialects have nasal infix: Yerevan *brnč'am*, *branč'ēm*. Bible vacat, but the *Hexaemeron* notes it (1830.120 [*baraĵem*] = 1984.189 [*barač'iwn* 'bleating']), corresponding to Gk. βλήχημα 'bleating' (Migne 29.132A). The term *bnč'em* has also the same value, as noted in Anania Sanahnetsi (acc. *NHB*): *արբն քնչեր*

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4. Several examples of this suffix can be found in Adjarian 1961: 460 (Լիակատար քերականություն Հայոց լեզվի, vol. 4, Yerevan: Press of the Armenian Academy of Sciences).

5. I must praise, at this point, the reverse word-index compiled by Haroutiun Palandjian, based on the vocabulary of the *Nor Baġirk'*. It is a remarkably accurate work, and this paper could not have come into being without Palandjian's formidable compilation.

6. Verbs in  $-č'im$  do not appear to be part of this paradigm.

7. This is the only verb in which we find a clear and separate stem functioning without  $-(a)(n)\check{c}'-$ . In all other stems  $-(a)(n)\check{c}'-$  is inseparable.

ութգին գոչմամբ "The bullock bellowed with a mighty cry."<sup>8</sup>

Arm. *ganč'em* 'to cry out.' The verb<sup>9</sup> is uncommon, and is quoted in David Anyaght *Book of Statutes* (acc. *NHB*): ճայն է բացակատարումն գանչեցելոյ ի մեզ հագագի: "the cry is openly made, caused to be shouted out in our soul." John Catholicos (1912.318): իսկ նոցա բացագանչութեամբ ճայն վերուստ ի վայր զգացուցանելին արքայ զառարկուածսն իրին: "But in voices shouted out on high from above, they warned the king about the circumstances." A noun form *ganč'* is known in compounds, e.g., *lusnaganč'* 'madman.'<sup>10</sup> It is assumed that the nominal form is derived from the verb, and certainly not all terms in -č'- have a nominal form.

Arm. *dandač'em* 'to wander, stray'; also 'to intone, ring.' Though the term is overwhelmingly used in the sense of 'wander' (= Gk. *πλανῶ* 'wander aimlessly, [Is 22.5, 28.7]), the word also pertains to sound. Yeznik 1826.212 (= 1959.501, ¶ 301): եւ ոչ որպէս ոմանք դանդաչեցին՝ քէ սատանայ ունէր իշխանութիւն շարժելոյ եւ փոփոխելոյ զաւդս, . . . "Moreover, as some have intoned, Satan has the power to move and turn the air, . . ." A derivative, *dandač'ec'uc'anem* 'to cause a sound,' is found in Narekatsi 1945.247: ոչ գանգակ նիւթոյ պըղընձոյ դանդաչեցուցեալ "not having caused a bell made of copper to ring." Derived from the same root are the verbs *dřnč'em* and

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8. Adjarian notes (*HAB* III.46.a) that, like *baranč'em*, there are four other echoic verbs that share this extended suffix in -*arač'em*: *t'arač'em*, *karač'em*, *harač'em*, and *šarač'em*. They will be discussed below.

9. One would first wonder if this would not be a 'cry of pain,' being derived from Arm. *gan* 'whip, cudgel,' but this does not appear to be so.

10. Literally 'moon-shouter.'

*dndč'em*<sup>11</sup> 'to ring, to make a noise.' There are various nominal forms (*dandanč'*, *dandanč'*, *dandanč'umn* 'delerium,' *dandač'ut'iun* 'ecstasy'), but none seem to have reference to a sound. Note English echoic *ding-dong*.

Arm. *t'arač'em*, *t'aranč'em*, *t'ač'em*, 'to lament, sigh with grief.' In Basil's *Grammar of the Gospel of Mark* (acc. *NHB*) we have *արսաւումօք քառաչէր* "He was lamenting with tears." In Seberianos we have *քառանչիցես եւ հեծիցես ի միջոյ սրտէ* "You will lament and groan from the bottom of your heart." Derivatives include *t'aranč'*, *t'arač'* 'a sigh, groan.' There is no appropriate root in *t'ar-* from which this may be derived, and Adjarian (*HAB*) calls it onomatopoeitic. It is impossible to see which, *t'a(n)č'em* or *t'ara(n)č'em*, is original. See *t'anč'em* below. Derivatives are perhaps from the extended root *taranč'* 'groan, bowel complaint,' *t'aranč'umn* 'id.'

Arm. *t'anč'em* 'to sigh, lament.' See *t'aranč'em* above. The word is perhaps a hapax in the shape *t'anč'em*; note Chrysostom (1862.I.124 = Tim.I.14): *Եւ մեք յորժամ զարթնուցումք, բազում ժամս ընդ քորելն եւ ընդ քոշքովելն, եւ ընդ քանչելն եւ ընդ քառանչելն հանեմք.* "And when we would awake, there would be much time for stretching and yawning, and to utter sighs and laments." It is not clear how it could be related to the noun *t'anč'* 'diarrhoea' (Acts 28.8 = Gk. *δυσεντέριον*)<sup>12</sup>.

11. A form *ddəč'am*, cited vaguely in Middle Armenian, is more common in Modern Armenian. That the *-am* declension becomes productive in forming echoic verbs can additionally be noted by NArm. *bbzam* 'to buzz.' and *bbč'am* 'to make a noise.'

12. The Greek original (Migne 62.576: *χασσωμένων, κνωμένων, ῥεγχόντων ἢ καὶ ὑπτίων ἀπλῶς κειμένων* "yawning, scratching, snoring and lying on our backs.") provides no support for 'farting.'

Arm. *xanč'em* 'to bray (of donkies)'; also appears as *xainč'em*. Uncommon, but Job 6.5 (իսկ արդ՝ զիարդ միթէ տարապարտուց խանչիցէ ցիչ, բայց եթէ կերակուր խնդրիցէ "But indeed, how is it possible that the wild ass brays if it has food?") = Gk. κρόζω 'to bray, make a noise.' There are frequent nominal derivatives: *xanč'iwn* 'roaring,' *xanč'umn* 'inflated pride.'

Arm. *kara(n)č'em* 'to lament.' The verb is rare, and the pattern *kara(n)č' barjeal* 'to raise a lament' is more common. Lazar Parpetsi 1904.56: Սուրբ եպիսկոպոսք . . . կանաչ բարձեալ լայիմ ի տանն Աստուծոյ. "The holy bishops . . . having raised a lament, were crying bitterly in the house of God." There is no appropriate stem *kar-* from which this word may be derived.

Arm. *kanč'em* 'to cry, scream'; cf. *xanč'em*, though less common. A simplex *kanč'* 'a cry, scream' is abundant. Agathangelos 1909.380: Եւ քազաւորն խոզացեալ՝ մեծաճայն, ճչէր, կանչէր, խանչէր քոհքոհելով, փրփրաբեալ, "and the king, pig-like, cried out in a great voice, shouted, yelled, slobbered, foamed."<sup>13</sup> Also note *knč'iwn* 'a grunt,' *knč'em* 'make a sound,' and *knjult* 'grunting-camel (a chimerical beast half camel, half boar).'

Arm. *karkač'em* 'to make the sound of cackling and babbling, the twitter of birds.' St. Basil *Book of Questions* (acc. *NHB*) : կարկաչել ճայնիւ, եւ եռեալ մարմնով առանց հաճոյից՝ ոչ առն փորձի է նա "he, with a cackling voice and a palsied body lacking in grace, is not the lamb of testimony." Lastivertsi 1963.104-5: Եւ յառաւտտիմսն նռուական երգովք եւ բարձրաճայն կարկաչիւք

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13. The Greek original (Guy Lafontaine, *La version grec ancienne du livre arménien d'Agathange*. Institut orientaliste, Louvain-la-Neuve 1973.277) reads: καὶ ὁ βασιλεὺς ὡς σύαγρος μεγάλη τῇ φωνῇ ἔκραζεν γρύζων καὶ ἄφροῦ πληρῶν τὴν ἑαυτοῦ ὄψιν, and γρύζων 'grunting,' seems to the equivalent of *kanč'em*.

գերկրագործսն ի քնոյն դանդաղանաց իրրեւ խթանաւ  
 զարթոնցեալ "the morning twittering of songs and the high-voiced  
 chirping raised, like a spur, the farmer from his sleep of idleness."  
 Khosrov (acc. *NHB*): զօրէն կաքաւչաց կարկաչեն "they clucked  
 away as in the partridge-dance." There are numerous nominal  
 derivatives: *karkač* 'a noise,' *karkač'un* 'noisy.' A voiced form is  
 also known: *karkaĵ* 'a noise.' Nasalized forms may be found in the  
 dialects: Axalc'xa *karknč'el*, Manisa *karkənč'oc*, etc.

Arm. *krč'em*<sup>14</sup> 'to caw (of crows).' Philo, "Second Sermon on  
 Genesis," 1826.115: եւ [ազգաւոր] զձայնսն յորժամ կռչիցէ "and  
 then [that crow] would give its cawing voice." The root Arm.  
 \**keř* is surely onomatopoeic, \*-*ker*- being commonly found in  
 words throughout the world for a crow-name or a crow-sound.<sup>15</sup> A  
 derivative form exists with nasalization, Arm. *krnč'em* 'to creak,  
 whistle, be shrill, etc.' Bible, Ex 11.7: կռնչեցէ ոչ շուն մի 'not  
 one dog will bark,' (= Gk. γρύζει [γρύζω] 'to make a noise,' here  
 'bark')<sup>16</sup>.

It seems entirely likely that the terms *karač'em*, *kařanč'em*,  
*kanč'em*, *krnč'em* and *krč'em* are all related, from a root \**kar*-,  
 subjected to parallels with other words that developed in -*nč*-, and  
 -*ařanč*'-.

14. Adjarian (ibid. 1961: 459) lists other verbs in -*č*'-.

15. Note OEng. *hrōc* 'rook,' from IE \**ker*- 'crow,' and the  
 reinvention of this *kr*- root in Eng. *crow*. Other language families  
 have a similar form. Note also Finn. *korppi* 'crow,' Tamil  
*karricāṇ* 'id' (often these words also have reference to the color  
 black, but we do not know how the term black was come upon);  
 also Gk. κρόζω 'crow,' Skt *kāyati*, Lith. *kranksėimas*.

16. Here we note that terms of the same origin, *krč'em*,  
 and *krnč'em*, have different values, 'bark' and 'caw,' yet the values  
 are both animal sounds.

Arm. *hač'em* (also as *haĵem*) 'to cry out,' also 'to bark, bay.' John Chrysostom, 1826.611: Երթա՛մ ի սուղ մտանիցես, հաչեսցես, հառաչես դառնապես. "When you would enter into mourning, you will cry out and sigh bitterly." There are various derivatives: *hač'iwn*, *hač'umn* 'barking, baying,' and *hač'ot* 'one who barks.' Adjarian lists some nasalized forms: *hñč'iwn*, *hñdiwn*. The word is probably related to *harač'em* and *hnč'em* below.

Arm. *harač'em* 'to sigh, groan.' The simplex is *harač* 'full of sighs, lamenting.' Narkeatsi 1945.39: Ընդ աչացուացքն նեղելոց մշտանիշերքն խարխափանո՛ի՝ Մեծակական ձայնիւ հառաչեմ. "Like the blind, constrained to grope about in utter darkness, I lament with a great plaintive voice." There are no examples of this root with a nasal infix, *\*harañč*, as would otherwise be expected, but see *hač'em* above.

Arm. *hnč'em* 'to sound, resound, echo, state.' Bible (21x = Gk. ἠχέω 'to resound, ring,' ἐξηχέω 'to sound forth,' βοάω 'to shout,' βομβέω 'to make a deep noise, to hum.' Derivatives include *hnč'iwn*, *hnč'ut'iwn*, *hnč'umn* 'noise, echo, *hnč'ot*, *hnč'akan* 'an echoing.' See *hač'em* above.

Arm. *čč'em* 'to wail' Bible 5x = Gk. κράζω 'to cry out,' φωνέω 'make a sound,' προσοδύρομαι 'lament,' ὀλολύζον 'to cry out to the gods, in prayer or thanksgiving.' From the same root are derived *čč'iwn* 'a cry, bawling,' and *čč'ot* 'screaming.' Adjarian (*HAB*) notes many non-literary forms with nasalization: *čñč'uel*, *čññč'el*, etc., which are supported in the dialects.

Arm. *mnč'em* 'to coo, wail, groan.' Bible 1x (= Gk. μελετώ 'coo [like a dove]'). Derivatives include *mnč'iwn* 'cooing.' The simplex would seem to be *munč* or, less likely, *minč* 'speech.' One notes also *munĵ* 'deaf mute,' which might be related, the alternates in -č- and -ĵ- may yield a separated meaning. The dialects contain many forms with -r-: *mīrmunĵ*, *mīrmīram* which are logical extensions with parallels; see footnote four and below.



Arm. *mṛnč'em*<sup>17</sup> 'to roar, bellow.' Bible (8x = Gk. ὠρύομαι 'to howl'; ἐρεύγομαι 'to bellow, roar'). A form in *mṛnč'am* exists, being cited in Chrysostom.<sup>18</sup>

Arm. *šač'em*, *šarač'em*. 'to rumble.' Jer 47.3: Ի ձայնէ ասպատակի նորա, Ի զինուց ոսից նորա եւ Ի շաչելոյ կառաց նորա եւ Ի շառաչելոյ անուոցն նորա, "at the sound of his horses, of his troops' feet, at the rumbling of his armament, and at the rumbling of his wheels." The Septuagint has (= Jer 29.3): σεισμός 'commotion of an earthquake.' But note John Chrysostom, *Homilies on John*, 1717.290 (բնդ): որք շուրջ քոռացեալ բզբեն, եւ ճիւղաղ շառաչեն "those ones, having been forced to fly around, are buzzing, and the Furies drone" (= Migne 59.172: βομβέω 'buzz'). It would seem the *šač'arem* is derived from *šač'em* on analogy with the other verbs in *-ar-ač'em* representing incomprehensible sounds; the root *šač'-* is thus probably the original. Derivatives exist from the stem *šač'-* (*šač'iwn* 'a rumbling noise') but less commonly from *šarač'-* (*šarač'iwn* 'id'). A nasalized form is found below, though with changed meaning.

Arm. *šnč'em* 'to breathe, puff,' *šnč'umn*, *šnč'iwn* (*šunč'* 'a breath, a puff'). Bible 18x (= Gk. πνέω).<sup>19</sup> See also *artašnč'em* 'to

17. Arm. *mṛnč'em* and *mnč'em* above would seem to be of the same origin, yet their meaning differs: 'to coo,' and 'to howl.'

18. There are two other incidents, given below, of a parallel suffix in *-nč'am*, but these are uncommon in the Classical period; in Modern Armenian only the *mṛnč'am* form exists, and it is the tendency of *-č'em* verbs to pass to *-čam* verbs in modern Armenian.

19. Kortlandt (*Studia Caucasica* 3, 1976.96) argues, following Pedersen, that Arm. *šunč'* is cognate with Skt. *śvāsiti* 'snort, hiss.' Yet this is root etymology; as at best we can only draw a relationship between the initial two letters of the

breathe out, puff, *šunč'ar* 'a straw.' Other languages show an \s\ sound: Gk. φύσημα, Skt. *śwās-*.

Arm. *šč'em* 'hiss.' Bible 9x (= Gk. σύριζω 'hiss, whistle,' ἔκσπρίζω 'to hiss loudly'). Derivatives include *šč'iwn* 'hissing,' *šč'ot* 'hissing, hisser.' Shirokov (*Lraber* 1980.5:89) suggests an origin from IE *k<sup>w</sup>-*. Derivatives include *šč'iwn*, *šč'umn* 'hiss or whistle.' Note Gk. σίζω, Lith. *šnypš-ti* 'hiss.'

Arm. *papač'em*, 'to bleat like a goat.' It also appears as *papaĵem* and *papanĵem*. *History of Alexander the Great* (acc. *NHB*): պապաչեաց (or պապանչեաց) խախանչելով իւրով բաւ լեզուան "a goat-like man bleated and made strange noises with his thick tongue" (here the Greek is βατταρίζω 'stutter'; see Heinrich Meusel<sup>20</sup>. There appear to be no nominal derivatives, but compounds (Grigor Magistros, acc. *NHB*) *papč'eak* 'goat,' *vrñapapč'eak* 'neigh-goat' (*vrñnem* 'to neigh'). Note simplex *papač'*, *papaĵ* 'a bleat.' Elsewhere we find a similar word, Lith. *bliauti* 'to bleat.'

Arm. *p'č'em* 'to blow, breathe.' Bible 12x = Gk. ἐμφυσάω 'blow in,' ἐκφυσάω 'blow out.' Khorenatsi (1913, 4.8): եւ օղբ ջերմաշինք պղտորեալք ժանդաւանաւք փչէին: "Winds blew, hot, turbid, pestilential." I can find no evidence that this word had as a derivative an onomatopoetic equivalent of the sound of wind. The stem, however, is certainly of onomatopoetic origin, but is used as verb for 'blowing.' *p'uč'* appears in *diwrap'uč'* 'a difficult breath,' and *oskep'uč'* 'a golden puff.' Note also *artap'č'em* 'to blow out.'

Arm. *p'rnč'em* 'to make a noise.' Bible 2x (= Gk. κρούγη 'a

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Sanskrit word *śvāsiti*. Further, the origin of Arm. *š* remains quite murky (Greppin, *AArmL* 5, 1984.91-97).

20. *Pseudo-Callisthenes nach dem leidener Handschrift*, Leipzig 1871.761.

shout'). The classical form is replaced by *p'rnč'am* in Modern Armenian, though that form is noted in the *NHB*.

Arm. *p'nč'em* 'puff, sneeze.' Yeznik 1959.486 (= 1826.177): **Եւ  
նչ փնչելն ի հրաբշտակէ.** "There was no sneezing by the angel." Note Skt. *kṣuta-*, Gk. *πταίρω* 'sneeze,' Eng. *atchoo*.

All three terms, *p'č'em*, *p'rnč'em*, and *p'nč'em.*, would seem to be related.

So we see that numerous verbs in *-č'* seem to be represent echoic sounds. Yet there are two very common verbs in *-č'-* that I have not discussed, *koč'em* 'to call' and *goč'em* 'to cry out, bellow.' Both occur with high frequency in the Bible, and are well known words. Yet both are no more echoic than Eng. *call*, and it is likely that these two particular verbs with a root in *-č'-* are only coincidentally part of this paradigm. Perhaps, however, it was the *-č'-* of these two verbs that moved, by analogy, to this large class of echoic verbs, but this cannot be proven. We can also note that neither *koč'em* nor *goč'em* appear, in any dialect, with a nasal infix.

There are seven additional words that do not smoothly fit into this onomatopoetic category. Five of these verbs are *zetč'em* 'to obscure,'<sup>21</sup> *xáč'em* 'to crucify' (and this *č'* is clearly part of the stem), *čanač'em* 'to know,'<sup>22</sup> *čačanč'em* 'glitter,' and *metanč'em* 'to

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21. John Catholicos, 1912.366: **Ոչ վիւմով ծերպի զեղչել, եւ  
զյեստոյսն միայն տեսանել** "Not to fall into shadows in a cavern  
of rock, so that only your buttocks are seen."

22. Arm. *čanač'em* 'to know'; aorist *caneay*. Perhaps the aorist stem would be from IE *\*ǵneO-*. Here see Jasanoff, "PIE *\*ǵnē-* 'know, recognize'; Bammesberger *Die Laryngaltheorie*, Heidelberg 1988.236-237. But this root could not have produced the present stem *čan(-?)áč'* nor would the common reduplicated form *\*ǵíǵn-(+ sk-)* be helpful. The best of the inadequate solutions suggests IE *\*ǵnO-* > preArm. *\*can-*, which, coupled to *ač'em*,

sin.' Two more of these seven verbs are ambiguous, for though they are verbs which represent a bodily motion (to yawn, to shake), they also have an associated sound. They are *doldoč'em* 'to shudder, tremble,'<sup>23</sup> Arm. *yoranč'em* 'yawn.'<sup>24</sup>

We have noted above that three verbs in *-nč'em* had alternate forms in *-nĵem*. In addition to those three, there eleven more echoic verbs in *-nĵem* which do not alternate with *-nč'em*. These co-forms in *-ĵ-* do not necessarily conform exactly in meaning to the forms in *-č'-*. They are as below.<sup>25</sup> Curiously, I know elsewhere of no alternation between a voiceless aspirate and a voiced sound. Surely here an alternation of *\*-nč-* and *-nĵ-* would certainly be more likely<sup>26</sup>.

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assimilates to the palatal *č*: hence *\*can-ač'em* > *čanač'em*. Further, we cannot say surely whether or not this is a suffix in *-ač'-* since the term does not conform to any of the parameters of 'murmuring, bleating or roaring' that are elsewhere common to this suffix.

23. Ephraim on Genesis (acc. *NHB*) ըստ նմին հօրն՝ որդին դողդօջէր. այն նմին էր երիտասարդ "like his father, the son trembled; this was a young man in pain."

24. Also *oronč'em*, *yōranč'em* (in any of these form a *ĵ* may replace a *č'*). Letters of Gregory (acc. *NHB*): կէս ննջեմք, կէս յօրանջեմք "Half are sleeping, half are yawning." Yeznik 1959.486 (1826.176): Յորժամ ստեպ ոք յօրանջիցէ, սարսափիւն գայ զոսկերօքն "For even when some yawn frequently, a shiver goes through their bones."

25. I should note here that I also hunted for echoic verbs appearing with such suffixes as *-(n)čim-* and even *-(n)jim-* or *-(n)cim-*. No such words were found.

26. The shift is known in Modern Armenian: note *otĵ/otč'* 'alive.'

Arm. *barbaĵem* 'prattle,' with the co-forms *baĭba(n)ĵem*, *baba(n)ĵem* 'id.' Yeznik (1826.260 = 1959.521): Յորժամ ոչ յումեքէ սանձահարին հարցուածովք, արտացոյ գրոց սրբոց բարբաջեն "As long as they are held in check by blows rather than zeal, they are prattling outside the Holy Scriptures." Note Skt. *barbara-* and Gk. βάρβαρος, Eng. *babble*.

Arm. *xxnĵem* 'neigh (of a horse).' The co-forms include *xrinĵem* and *xəxənĵem* 'id.' Bible 3x (= Gk. χρεμετίζω 'cry out, whinny, neigh'; χρεμετισμός 'a neighing'). There are two derivatives, *xxnjakan* and *xxnjiwn* 'neighing.'

Arm. *xoxoĵem* 'gurgle, sound of water.' Agathangelos 1909.2). Also *xoxonĵem*. Իսկ ի մէջ ըմբոնելոցն խորոցն անդնդոցն լցեալ խորոջացեալ խոխոջելովն ահապետ արարեալ զօրհասն գոշակեն.<sup>27</sup> "In the middle of the cavernous depths, that echo with sound of water, they fearfully foresee their final moment." There is a simplex *xoxoĵ* 'a gurgling.'

Arm. *xotxoĵem* 'murmur, gurgle.' also *xotxonĵem* and *xrxnĵem*. Note Philo (1826.107): ոչ ապականեալ լինի յորձանօք սահանացն զոր ի վեր խողխոջեն շուայտեալքն "it was not destroyed by the torrents of the waterfall which, from on high, gurgled." There is a simplex, *xoxoĵ* 'a murmuring, babbling, gurgling.' This term, and *xoxoĵem*, above, are probably the same.

Arm. *karkaĵem* 'to prattle.' See *karkač'em* 'to cackle, to chatter,' above.

Arm. *haĵem* 'bark.' Bible 1x, Is 56.10 (= Gk. ὕλακτέω 'bark, howl [of dogs]'. See the voiceless form, *hač'em* 'bark, cry out' above.

Arm. *tōtanĵem* 'ring, toll.' Bible 2x (= Gk. ἀλαλάζω 'make a loud noise' I Cor 13.1 κύμβαλον ἀλαλάζον 'a clanging cymbol;

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27. Not present in the Greek version edited by Lafontaine (vide supra).

or Gk. ἀποφθέγγομαι 'chant,' Ps 58.8 = 57.7). There are two nominal derivatives: *tōtanj*, *tōtanjank*′, and *tōtanjiwn* 'a clang, a ringing.' Compare the English musical sound: *la-la-la*..

Arm. *mrtnjem* 'murmur.' Bible 4x (= Gk. συνᾶδω 'sing together,' εἶπον 'say,' μελετώω 'fuss over'). There is a root *mrtnj* 'a whisper, murmur.' Note Virgil *Ae. I.55: magno cum murmure montis*.'

Arm. *ššnjem* 'whisper.' Bible 5x (= Gk. φθέγγομαι 'utter,' ψιθυρίζω 'whisper').

Arm. *papanjem* 'bleat.' See *papanč'em*.

Arm. *vrnjem* 'neigh.' Bible 1x (= Jer. 5.8 χρεμετίζω 'whinny, neigh'). There are numerous nominal derivatives: *vrnjapapč'eak*, *vrnjiwn*, and *vrnjotakan*.